

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1-11. canceled.
12. (new) Hollow nanoparticles for encapsulating a substance, and formed of a particle-forming protein with an ability to recognize a specific cell, wherein the protein contains at least one modified cysteine residue.
13. (new) Hollow nanoparticles as set forth in claim 12, wherein the protein comprises a hepatitis B virus surface-antigen protein.
14. (new) Hollow nanoparticles as set forth in claim 12, wherein at least one cysteine residue present in a transmembrane region is replaced with a hydrophobic amino acid, and/or at least one cysteine residue present outside or inside the particles is replaced with a hydrophilic amino acid.
15. (new) Hollow nanoparticles as set forth in claim 14, wherein at least one cysteine residue present in a transmembrane region is replaced with an alanine residue, and/or at least one cysteine residue present inside or outside the particles is replaced with a serine residue.
16. (new) Hollow nanoparticles as set forth in claim 13, wherein the hepatitis B virus surface-antigen protein contains S protein with an amino acid sequence whose cysteine residues 76, 90, 139, 147, 149, 221 and at least one of cysteine residues 137 and 138 of the amino acid sequence from its N-terminus have been replaced.

17. (new) Hollow nanoparticles as set forth in claim 12, wherein the cysteine residues are modified by mutating a gene that encodes the particle-forming protein and by expressing the mutated gene.

18. (new) Hollow nanoparticles as set forth in claim 17, which are obtained by transforming a eukaryotic cell with a vector including the mutated gene, and by expressing the mutated gene in the eukaryotic cell.

19. (new) Hollow nanoparticles as set forth in claim 18, wherein the eukaryotic cell is an animal cell or a yeast cell.

20. (new) A drug which comprises hollow nanoparticles of claim 12 in which a substance to be transferred into a cell is encapsulated.

21. (new) A drug as set forth in claim 20, wherein the substance to be transferred into a cell comprises a gene.

22. (new) A therapeutic method using a drug of claim 20.